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CANADIAN CONTRACT RECORD

A WEEKLY JOURNAL OF

PUBLIC • WORKS • TENDERS •
ADVANCE • INFORMATION •
AND • MUNICIPAL • PROGRESS

EVERY THURSDAY

This paper reaches every week the Town and City Clerks, Town and City Engineers, County Clerks and County Engineers, Purchasers of Municipal Debentures and leading Contractors in all lines throughout Canada.

VOL. 6.

APRIL 25, 1895

No. 12.

THE CANADIAN CONTRACT RECORD,

PUBLISHED EVERY THURSDAY

As an Intermediate Edition of the "Canadian Architect and Builder."

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Advertising Rates on application.

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TENDERS FOR DEBENTURES

The Municipal Council of the City of Nanaimo invite proposals up to MONDAY, 29TH APRIL, 1895, endorsed "Tender for Debentures," for the purchase of

\$10,500.00 DEBENTURES

issued under the authority of the Commercial Filling By-Law, 1894. The Council reserves the right to reject the highest or any proposal.

S. GOUGH, City Clerk.

Nanaimo, B. C., 22nd March, 1895.

TO CONTRACTORS



Tenders will be received by the undersigned up to noon on

Thursday, May 2nd, 1895

For the following works:

CONCRETE SIDEWALK

on Dunlop street, from Mulcaster street to Clapperton street (both sides, excepting in front of the Dominion Building and John Plaxton's store) about 2000 lineal feet of sidewalk 12 feet wide.

TELFORD PAVEMENT

on Dunlop and Elizabeth streets, from Mulcaster street to John street, about 1600 lineal feet of roadway 44 feet wide.

DRAINAGE

Nine inch tile drain on Worsley street, from Poyntz street to Mulcaster street; and from Duckworth street to Bercy street on Louisa street, and on Toronto and Elizabeth streets, from Ross street to Mary street, about 2800 lineal feet.

Specifications and conditions may be seen and forms of tender obtained at the office of the Town Clerk.

A marked check, payable to the order of the Town Treasurer, for the sum of \$200, must accompany every tender.

The lowest or any tender not necessarily accepted. Unskilled local labor as far as possible to be employed. Separate tenders for each particular work.

HENRY BIRD,
Town Clerk.

Barrie, April 9th, 1895.

Notice to Contractors

Sealed tender, addressed to the Town Clerk, Berlin, and marked "Tenders for Cement Side-Walks," will be received until the 30TH DAY OF APRIL, 1895, at 7 p.m., for the construction of

CEMENT SIDEWALKS

that may be required in the Town of Berlin during the current year. Specifications and blank forms of tender may be obtained on application to the undersigned.

The lowest or any tender not necessarily accepted.

G. M. DEBUS, Chairman Board of Works.
HERBERT J. BOWMAN, Town Engineer.

Berlin, April 20th, 1895.

TENDERS

Sealed tenders, marked "Waterworks," will be received by the undersigned on or before the

1st of May, 1895,

For the construction of

A SYSTEM OF WATERWORKS AND SEWERAGE IN THE TOWN OF SUDBURY, ONT.

Plans, specifications, etc., can be seen and forms of tender had at the following places:

Office of Gordon & Rorke, Engineers, Sudbury.
" Montreal Star, Montreal.
" Messrs. McPherson, Clark & Jarvis, Barristers, Toronto.

An accepted bank cheque, equal to 5 per cent. of the amount of tender must accompany each tender. This cheque will be forfeited if the party declines to enter into the contract and will be returned in case of non-acceptance of tender.

The lowest or any tender not necessarily accepted.

A. FERRIS,

March 18, 1895.

Clerk Town of Sudbury



TENDERS FOR ANNUAL SUPPLIES

BRICK AND CEMENT

Tenders will be received by registered post, addressed to the City Engineer, Toronto, up to 11 o'clock a.m. on SATURDAY, MAY 4TH, 1895, for the supply of

BRICK AND CEMENT

For the year ending 31st May, 1896.

Specifications may be seen and forms of tender obtained on and after Saturday, April 27th, 1895, at the office of the City Engineer.

A deposit in the form of a marked cheque, payable to the order of the City Treasurer, for the sum of 2½ per cent. on the value of the work tendered for must accompany each and every tender, otherwise it will not be entertained.

The tenders must bear the bona fide signatures of the contractor and his sureties or they will be ruled out as informal.

DANIEL LAMB,
Chairman Committee on Works.

Committee Room, Toronto, April 22nd, 1895.

The Guelph Pavement Co., with a capital stock of \$25,000, has been granted incorporation.



TENDERS

FOR

MATERIAL AND SUPPLIES

Notice is hereby given that sealed tenders, addressed to the City Engineer and endorsed "Tenders for —," as the case may be, will be received by registered post only up to the hour of eleven o'clock on SATURDAY, THE 4TH OF MAY, 1895, for the undermentioned material, etc., required by the Department during the year, viz.:

EXCAVATING AND LAYING WATER PIPE.
SPECIAL CASTINGS.
HYDRANTS.
STOP VALVES, 6 INCH AND 12 INCH.
CAST IRON PIPE.
LEAD PIPE.
BRASS AND BRONZE CASTINGS.
LUMBER.
GENERAL STORES.
BRASS WORK FOR HOUSE SERVICES.
IRON AND STEEL.
IRON VALVE AND STOP COCK BOXES.
RUBBER VALVES, BOOTS, ETC.
LUBRICATING OILS.
OAK TOPS.
COAL AND WOOD.
PIG LEAD.

Specifications and forms of tender and full information may be obtained at the City Engineer's office.

All tenders must be made upon the proper form, and bear the signatures of two good and efficient sureties who will, in the event of same being accepted, enter into a bond for the proper fulfillment of the contract.

A deposit, cash or marked cheque, must accompany all tenders as per specifications.

The lowest or any tender not necessarily accepted.

DANIEL LAMB,

Chairman Committee on Works.

City Hall, Toronto, April 24th, 1895.

CONTRACTS OPEN.

STELLA, ONT.—Capt. Glenn will build a new residence.

PRESCOTT.—Ward & Steele, contractors, propose erecting a planing mill.

PAKENHAM, ONT.—A new Presbyterian church will be erected here this season.

RENFREW, ONT.—The construction of a system of waterworks is being agitated.

COLDWATER, ONT.—Mr. Croker, of Orillia, is preparing plans for a residence to be erected for the Ryan estate.

LUNENBURG, N. S.—Geo. H. Love, Town Clerk, invites tenders until the 1st of May for the purchase of \$10,000 of debentures.

SYDNEY, C. B.—J. C. Townsend, Town Clerk, will receive tenders until Saturday, the 4th of May, for the purchase of \$10,000 of debentures.

BERLIN, ONT.—A by-law to raise the sum of \$10,000 for erecting a market building and purchasing fire hose will be voted on by the ratepayers on the 4th of May.

BRUSSELS, ONT.—Plans for a new school building are being considered by

the School Board, and a selection will be made this week. Estimated cost of building, \$7,000.

BYRON, ONT.—Tenders for the erection of a brick addition to the Byron school house are invited until 4 p. m. on Friday next. Address Jas. E. Griffith, sec.-treas.

KNOWLTON, QUE.—The Town Council desires to borrow the sum of \$10,000 on municipal debentures, and offers are invited by J. E. Fay until the 1st of May.

EXETER, ONT.—The Committee appointed to report on a plan for Main street church, have recommended that the building be erected after the style of a church at Glencoe.

HAMPTON, N. B.—Jacob Jackson has purchased property on which to erect a new residence. Manager Evans, of the Central railway also contemplates building a new residence.

LIMOULOU, QUE.—Tenders for the purchase of bonds of the corporation to the extent of \$55,000 are invited by J. E. Plamondon, Secretary Treasurer, until Monday, the 6th of May.

PORTNEUF, QUE.—The dam belonging to the flour mill of the estate of the Marquise de Bassano was washed away a fortnight ago. The damage is estimated at between \$4,000 and \$5,000.

KINCARDINE, ONT.—The construction of an electric railway from Kincardine to Teeswater was considered by the Board of Trade last week. The question of granolithic pavements was also taken up.

BUCKINGHAM, QUE.—At a recent meeting of the Building Committee of St. Stephen's church, it was decided to commence operations next month. Several designs were discussed, but no selection was made.

OSHAWA, ONT.—Work is to be commenced on the electric railway at once. Ahearn & Soper, electrical engineers, of Ottawa, recently went over the proposed route with Capt. Carter, the promoter of the road.

HARRISTON, ONT.—Geo. Gray, architect, is just completing plans for a large three-storey brick flour mill, with basement, and a large frame elevator for Wenger Bros., to be built on the site of the old mill at Ayton.

FREDERICTON, N. B.—One of the piers of the railway bridge over the St. John river was damaged by an ice jam last week to the extent of \$3,000. The bridge is owned by the Fredericton and St. Mary's Bridge Company.

NANAIMO, B. C.—Building operations are assuming a brighter aspect. It is expected that the erection of the new government buildings will be proceeded with shortly. No definite steps have been taken in regard to the new school house.

ST. STEPHEN, N. B.—A special general meeting of the shareholders of the St. Stephen and Milltown railway company is called for May 6th to consider the question of building the road this year and to devise ways and means to that end.

ST. JOHNS, QUE.—F. G. Marchand, M.L.A., John Black and other citizens recently waited on the Minister of Militia at Ottawa, to ask that the Military school be not removed from this town and that any expenditure be used to improve the present premises.

QUEBEC, QUE.—The contract for the bridge to be constructed over the St. Anne river, under the direction of the Provincial Department of Public Works, will be given out shortly. For this work the Government has subscribed \$9,500 and the municipality \$15,000.

COBOURG, ONT.—Tenders are invited by D. H. Minaker, Town Clerk, until the 4th of May for the supply of an electric fire alarm system for the town consisting of 6 boxes, 6 miles of wire, 13 electro

mechanical gongs and one large gong, and 12 box indicators.

SOUTH HAM, QUE.—O. Lamoureux, secretary-treasurer, invites tenders for the corporation until the 9th of June next for the construction of a fireproof wing in connection with the registry office and Court House of the County of Wolfe. Plans may be seen at the office of the secretary-treasurer.

CANNINGTON, ONT.—Tenders for the erection of a Methodist church here are invited by R. H. Shipman, Secretary Building Committee, until noon of April 29th. Plans may be seen at the store of Wm. McPherson, in this town, and at the office of G. M. Miller, architect, Toronto.

ALEXANDRIA, ONT.—An artesian well for fire protection will be sunk.—The Government have appointed M. J. McLennan, C. E., of Williamstown, to survey the site for the proposed Dominion reformatory to be erected here. The survey is necessary to enable the architect to prepare plans for the building.

OTTAWA, ONT.—The Dominion Government is preparing to complete the dredging of Kaministiquia river to 300 feet wide and 20 feet deep.—The question of constructing a new wing to the hospital will probably be discussed at the next monthly meeting of the directors of the Protestant hospital.

TILSONBURG, ONT.—J. H. Teall, president of the Pacific and Lake Erie Railway Company, states that the road will be constructed at once, the Dominion and Provincial Governments having each granted subsidies. This line is to extend from Tilsonburg to Port Burwell, a distance of sixteen miles.

WINNIPEG, MAN.—Mr. Hugh McGowan, architect, is asking for tenders until Saturday, the 28th inst., for the erection of a block of stores at the corner of Main and James streets.—The finance Committee has decided to recommend the council to submit the by-law to raise \$65,000 for school purposes to a vote of the ratepayers.—Architects are invited to submit plans for the proposed Masonic temple to be erected in this city.

LEVIS, QUE.—A project is on foot to furnish electric light to the town from the Chaudiere Falls, which are 95 feet high and will give 500,000 horse power. The distance is eight miles from Notre Dame de Levis.—The Town Council has accepted the preliminary plans of the company which proposes to construct a waterworks system for the town.

GANANOQUE, ONT.—Messrs. Power & Son, architects, of Kingston, are preparing plans for the following buildings in this town: high school for Board of Education; residence and office for Dr. Rodgers; extension and improvement of the International hotel for A. M. Gamble.—It is stated that the new electric light company which proposes to commence operations here shortly will put in an underground system, which they expect to have completed before October.

WINDSOR, ONT.—Judge C. B. Waite, of Chicago, recently purchased 150 lots in this town, with the intention of erecting several houses on the property this summer.—J. M. Turner, of Detroit, is preparing the plans for the building of the Windsor, Amherstburg and Lake Erie railway.—The Presbyterian congregation have selected a site on which to rebuild their church, and have decided on the erection of a building with a seating capacity of 1,000, which, with school room, will cost about \$20,000.

GUELPH, ONT.—Tenders are invited by R. Mitchell, City Clerk, until Thursday, the 2nd of May, for the supply of 600 tons of steam coal.—Geo. Sleeman has purchased property on which to erect the power house for the proposed electric

railway, work on which will be commenced shortly.—Tenders are invited by John Newstead, Chairman Board of Works, until 6 p. m. on Friday, the 26th inst., for furnishing two street sprinklers, to be delivered before June 1st next.—The Board of Health has recommended the City Council to erect a permanent isolation hospital.

LONDON, ONT.—The electric railway line to Springbank and the location of the bridge across the river at that point are being staked out, under the superintendence of Mr. Charles Carr, manager of the railway.—At a vestry meeting of the church of St. John the Evangelist, held last week it was decided to proceed with the enlargement of the Sunday school room as soon as the necessary funds could be secured.—The plans for the new bicycle track at Queen's Park are being prepared.—The civic deputation have returned from a visit to several American cities in search of information on street paving, and the City Engineer will recommend either brick or asphalt.

KINGSTON, ONT.—Several citizens have purchased islands at Loughboro lake and will erect summer residences thereon.—S. B. Bailey proposes building a new residence on University street.—Arthur Ellis, architect, invites tenders until 6 p. m. to-day (Thursday) for the erection of a brick residence on University avenue for Oliver Chown. W. Newlands, architect, invites tenders until the same date for the erection of a surgical theatre in connection with the Kingston General Hospital.—The extension of the waterworks system was again considered by the Waterworks Committee at a recent meeting. It was estimated that the extension would cost at least \$50,000. The scheme was further deferred, and the superintendent will report on how much of this would be met by new water consumers.

HAMILTON, ONT.—W. S. Kinnear has been appointed chief engineer of the Toronto, Hamilton and Buffalo railway. This road has been partially constructed from Brantford to Hamilton, the branches from Hamilton to Toronto and Welland having yet to be constructed. These will be built this summer and Mr. Kinnear will superintend the construction.—Wm. Stewart & Son, architects, are asking for tenders until Monday the 29th inst., for the erection of a pair of brick dwellings on Catharine street south.—The Board of Works has granted permission to the Toronto, Hamilton and Buffalo railway to erect a bridge over Aberdeen avenue, with two intermediate steel supports.—The City Council has resolved to engage experts to report, in conjunction with the City Engineer, on a plan for improving the waterworks system.

ST. JOHN, N. B.—The Shore Line Railway Company is applying to Parliament for a charter to build a railway from St. John, N. B., to connect with the central railway from Hampton to St. Martin's with power to extend to Norton.—The Colonial Iron & Coal Co., of this city, propose to erect a blast furnace at Carlton. The company have also secured the right to build a railroad from the coal areas to Gibson, opposite Fredericton.—H. H. Mott, architect, has prepared plans for a double house, containing four tenements for Mr. Dobson. Tenders will be asked next week.—R. C. John Dunn, architect, has prepared plans for a six roomed school building, tenders for which will be awarded in a few days. The same architect is preparing plans for additions, including spire, to the R. C. church at Fairville, N. B., for Father Collins.

MONTREAL, QUE.—The cost of excavation necessary for the Notre Dame street bridge, to be built in connection with the new east end depot, has been estimated at \$120,000. This work to-

gether with the building of the bridge, is to be carried out by the city.—W. C. McDonald has donated to McGill University a large portion of land in the municipality of Westmount, to be used for a new observatory and botanical garden. It is the intention of Prof. McLeod to visit San Francisco and Washington with the object of inspecting the observatories in those places. Tenders are invited until Tuesday, the 30th inst., addressed to A. Benoit, Secretary Department of Militia and Defence, Ottawa, for renewing in part with galvanized iron, the roof of the drill shed in this city. Specifications may be seen at the brigade office, Craig street. The Road Department has given notice of its intention to construct a sewer on Pantaleon street, from Prince Arthur avenue to Pine avenue.—The Bell Telephone Co. invite proposals until the 1st of May, addressed to C. P. Sclater, sec.-treas., for the purchase of \$214,000 of 5 per cent., thirty year debentures.—The congregation of Zion Church, who have been worshipping in a basement building, have decided to complete the superstructure this summer. It will be 80x56 feet in size, built of Montreal limestone, with a seating capacity of 600; electric lighting and hot air furnaces. Estimated cost, \$10,000.

TORONTO, ONT.—Mrs. Fuller will build a detached residence on the east side of the Dunbar road estate.—Plans of a new Methodist church to be erected at Cannington, Ont., are on view at the office of G. M. Miller, architect, 18 King street east.—Mr. J. W. Siddall, architect, has prepared plans for the rebuilding of the front portion, 100x80 feet, of Messrs. W. A. Murray & Co.'s store on King street. The front to the height of two stories will be constructed of stone, the remainder of the building of brick. The height of the building will be six stories. The cost of the improvements are estimated at \$60,000.—The estimates of the Collegiate Institute Board have been fixed at \$71,910. Of this amount \$12,000 will be expended for an eight-roomed addition to Jarvis street school, and \$1,100 for improvements to Harbord street school.—The Works Committee of the City Council are asking for tenders until Saturday, the 27th inst., for the supply of 3,000 tons of large egg coal.—The City Engineer will report next week on the question of a water supply for the Island. The cost of constructing a small pumping station and pipe around the Island is estimated at \$15,000.—The promoters for the proposed hospital for consumptives have been notified that the Provincial Government will place the new hospital on the list of those receiving public aid.—At a meeting of the Board of Works held on Monday last, the City Engineer presented a complete list of the streets upon which he recommended the construction of new pavements. The total length of the streets is about ten miles, and the work will cost upwards of \$375,000. The recommendations were sent on to the Executive Committee. The following is the list of streets, together with the class of pavement recommended: D'Arcy street, from Beverley street to Spadina avenue, and from Beverley to McCaul streets, brick; St. Patrick street, from McCaul to Huron streets, and from Spadina avenue to Huron streets, brick; Selby street, from Huntley to Sherbourne, asphalt; Argyle street, from Dundas street to Gladstone avenue, cedar; Beaconsfield avenue, from Queen to Saurin streets, cedar; Beverley street, from Queen to College, brick; Brunswick avenue, from College to Bloor, asphalt; Bellevue avenue, from College to Bellevue Place, cedar; Spadina avenue, from King to Front, asphalt; Spadina avenue, from King to Queen, asphalt; College street, from Beverley to Spadina, asphalt; College street, from Beverley to Yonge, asphalt; Huntley street, from Bloor to Earl,

asphalt; Henry street, from College to Baldwin, brick; Harbord street, from St. George to Huron, asphalt; Lisgar street, from Queen to Dundas, cedar; McCaul street, from Grange to Anderson, asphalt; McCaul street, from Anderson to College, asphalt; McCaul street, from Queen to Grange, asphalt; Parliament street, from Queen to Gerrard, asphalt; Prospect street, from Rose avenue to Parliament, brick; Amelia street, from Sumach to Parliament, cedar; Baldwin street, from Beverley to McCaul, brick; Baldwin street, from Beverley to Spadina, brick; Northcote avenue, from Queen to Saurin, cedar; Nassau street, from Lippincott to Bathurst, cedar; Nassau street, from Lippincott to Spadina, cedar; Sullivan street, from Beverley to Spadina, cedar; Bellwoods avenue, from Queen to Mansfield, cedar; Huron street, from College to Sussex, asphalt; Division street, from Spadina to Huron, cedar; Arthur street, from Bathurst to Euclid, brick; Berkeley street, from Gerrard to Carlton, asphalt; Brookfield street, from Queen to Maple, cedar; Howard street, from Sherbourne to Parliament, asphalt; Dovercourt road, from Queen to Dundas, brick; Gladstone avenue, from Queen to Dundas, cedar; Buchanan street, from Yonge to Teraulay, cedar; Charles street, from Church to Jarvis, asphalt.—The application of the Cobban Manufacturing Co for a site on the Esplanade on which to erect a new factory has been passed by the Property Committee, subject to the approval of the City Council.—The plans of Mr. J. W. Siddall, architect, has been accepted for a new Jewish synagogue to be erected on Bond street for the congregation now worshipping in the synagogue on Richmond street. The building will comprise an auditorium, with gallery over, having a seating capacity of 850. The school room will accommodate 500. The front will be of buff brick and terra cotta.—Voting will take place on Saturday, the 25th of May, on the by-law to raise the sum of \$277,000 for the purchase of an electric light plant, \$75,000 for a six-foot steel intake pipe across the bay, \$135,000 for 36-inch water main to the reservoir, and \$90,500 for smaller mains.—Tenders are invited by the Department of Public Works for Ontario, until Friday, the 10th of May, for the following works: houses for engineer and gardener, blacksmith's and carpenter's shop and ice house at Brockville asylum; experimental building

(Continued on page 4.)

WILLIS CHIPMAN, B. A. Sc.,
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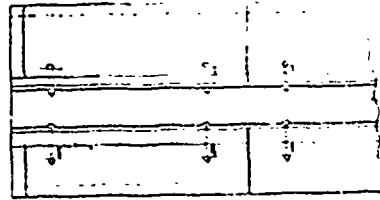
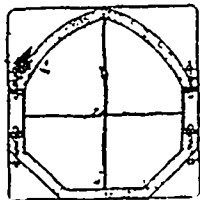
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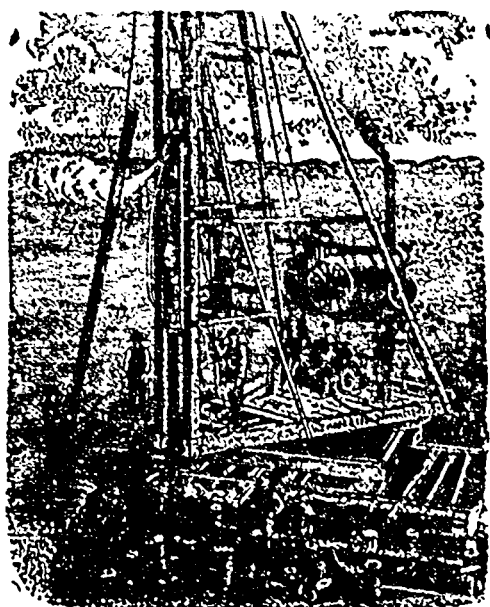
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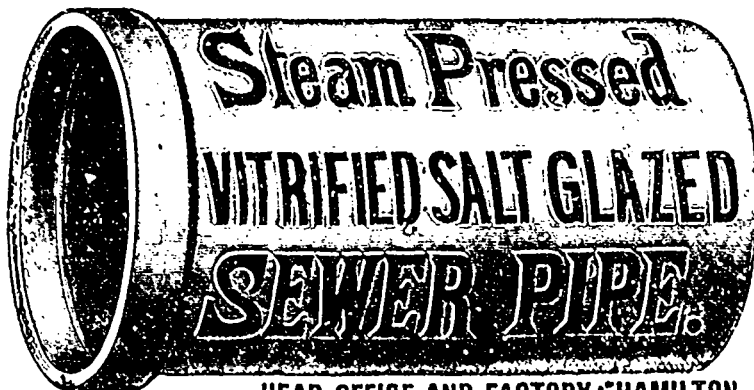
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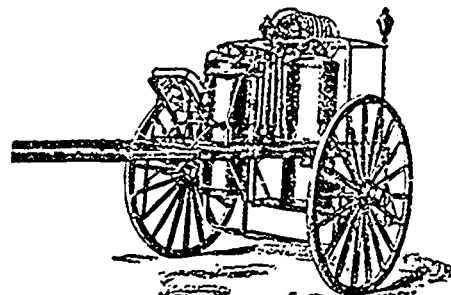
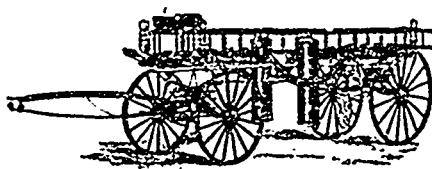
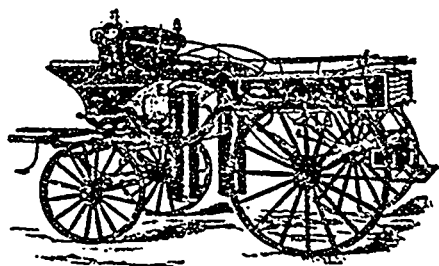
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MUNICIPAL DEPARTMENT

THE PURIFICATION OF WATER BY ELECTRICAL PROCESSES.

The more recent systems of water purification, in which electricity plays a part, involves the electrolytic decomposition of a solution of common salt. The London Electrical Review thus briefly describes the principle underlying the system:—When a solution of salt (chloride of sodium) is decomposed by electricity, sodium is liberated at one pole and chlorine at the other. The sodium is immediately oxidised, and combines with the water present, and a solution of caustic soda results. By suitable mechanical contrivances the chlorine gas may be conducted away from the other pole as fast as it is liberated. But if instead of separating the caustic soda and the chlorine from each other they are allowed to combine, a complicated series of reactions takes place common salt is not reformed again, but various other products result, which depend, as regards their nature and amount upon the concentration of the liquid, as well as upon its temperature. Under ordinary circumstances the principal product is sodium hypochlorite, and this is the substance which is relied on for rendering innocuous the organic matter of any water with which it is subsequently mingled in the form of an aqueous solution.

As we have already observed, when dealing with a system for purifying sewage (*vide* Electrical Review, August 31st, p. 250), there is nothing new in the application of electricity to produce hypochlorites, nor is there anything novel in the use of sodium hypochlorite as a disinfectant or germicide. The so-called electrical purification of water by treating it with an electrolysed solution of salt is simply a process of disinfection by sodium hypochlorite. Electricity as such has nothing to do with it; its function is merely to bring about the formation of the chemical, and there is nothing to be gained by christening plain, honest, hypochlorite, with some fancy name of mysterious import, such as "electro-this" or "electro-that."

We now reach the question whether it be desirable to treat a city's water supply with a powerful and soluble disinfectant like sodium hypochlorite. To this question Dr. Thomas M. Drown (to whose paper in *Technology Quarterly*, 1894, Vol. vii., No. 1, p. 51, we acknowledge our indebtedness) would evidently give an unqualified negative, and is of opinion that where a water supply has got into such a hopelessly bad condition that nothing will render it safe but disinfection by means of hypochlorites or other chemicals of that order, it is high time to abandon that supply. The idea of chemical disinfection is repellant to Dr. Drown, and he considers it to be a foolish blunder to permit the

pollution of water sources and then systematically to disinfect them.

For our own part, we confess to entertaining no sentimental objection to the chemical disinfection of a water supply, especially if it be the only supply available, provided that the operation of disinfection leaves nothing behind it. Can this be said of sodium hypochlorite? We think not; and that it comes under the category laid down by Dr. Frankland, F. R. S., in a book entitled "Micro-organisms in Water," published a month or two ago. This category includes substances which, being soluble, are chemically active, and are added in such quantity that a direct bactericidal effect is produced. Such treatment cannot, as a rule, be employed for the purification of drinking water, but is extremely useful in the disinfection of sewage. If those who propose to purify water by such means are ready with a system of precipitation which shall eliminate from the water every trace of hypochlorite after the latter has done its work upon the deleterious organic matter and germs, then these arguments fail to carry any weight. It matters not a little bit to the consumer what operations the water is subjected to, so long as he receives it eventually in a pure condition. Surely such a consummation is not beyond the range of possibility?

The purification of potable waters is, from the hygienic standpoint, of the same order of importance as the disposal of sewage. Given a good water supply and an efficient sewage system, and the death rate in our large cities never fails to fall. For years sanitary experts and faddists in hygiene have been wreaking their own sweet will upon the conditions under which we live; the resources of chemistry and of engineering have been tried to the uttermost, and yet the call is for more improvement. Electricity has proven so cosmopolitan in its applications, that it is at least reasonable to suppose that the great water question is not beyond its influence, whether it be used as a direct or an indirect agent. And the degree of success so far attained by those who have sought to apply it to the problem is certainly not discouraging. The lines upon which electrical engineers have hitherto sought its solution may not give promise of much result, or be desirable in their issue; but that is no argument for giving up the attempt. It remains for those who are interesting themselves in hygienic matters to follow up other lines of research; the subject is sufficiently interesting and important; whilst regarded from a purely sordid point of view, it presents every inducement.

LEGAL DECISIONS AFFECTING MUNICIPALITIES.

HODGINS v. CITY OF TORONTO.—Judgment of Mr. Justice Street at Toronto, on motion to quash certain parts of by-law No. 3,239 of the city of Toronto, passed 9th April, 1894, which recited that the corporation had constructed certain plank sidewalks in the city, set forth (with the price of each) in the schedule issue of local improvement debentures to pay for

them, and to levy a rate during two years upon the assessable real property fronting upon the streets on which the sidewalks were laid, sufficient to pay the debentures and interest. There was no recital of any petition for the by-law, and it was supported as having been passed under the authority of sec. 623 (b) of the Municipal Act, 1892. There was no recital that two-thirds of the members of the City Council present at any regular meeting were of opinion that the sidewalks in question were desirable in the public interest, but an affidavit stated that the Council had unanimously so resolved. No notice of the intention to pass such a resolution or to consider the question was given save by advertisement in a newspaper, which had not been seen by the applicant. Held—That the determination under sec. 623 (b) by the Council of the question whether the sidewalks are desirable in the public interest is a judicial act, and, before a conclusion is reached upon it, the persons affected by it should have notice that it is under consideration, and be permitted to show, if they can, that they are not desirable; and the application having had no notice, and being entitled, in the absence of any provision to the contrary, to actual notice, the by-law, so far as it purported to affect his property, should be quashed. Order accordingly.

Bags for removing ashes from buildings have been tried recently in New York City by Col. George E. Waring, Jr., the Street Cleaning Commissioner. The object in using them was to prevent the annoyance occasioned by dumping the ashes from the metal cans formerly used into open carts, whose progress through the streets on a windy day was attended with a cloud of dust floating off to leeward. The bags are made of heavy canvas and are kept distended while in the houses by a metal cylinder open at each end. When the ashman comes along he pulls this metal cylinder out of the bag, ties up the mouth of the latter, and puts it in the open, two-wheeled metal cart in which New York ashes are removed. Then a fresh bag is taken from a pile carried by the cart and the metal cylinder is placed inside it ready to be taken into the building again. This method of collecting ashes has proved satisfactory on the single street where it has been tried, so far as the prevention of dust is concerned, but there was some trouble on account of ashes and garbage being mixed together. Some years ago the Health Board required these classes of refuse to be kept separate, and although this order is still on the books it has been disobeyed since the householders saw the ashes and garbage thrown together in the same cart.

The Town Clerk, mentioned in Acts, as addressing the mob at Ephesus, according to the Plumbers' Trade Journal, held an office equivalent to mayor.

Worthington & Garrett, plumbers, Toronto, recently had a narrow escape from fire. Flames were discovered in the vicinity of a large gasoline tank in which the spigot had been partially turned on.

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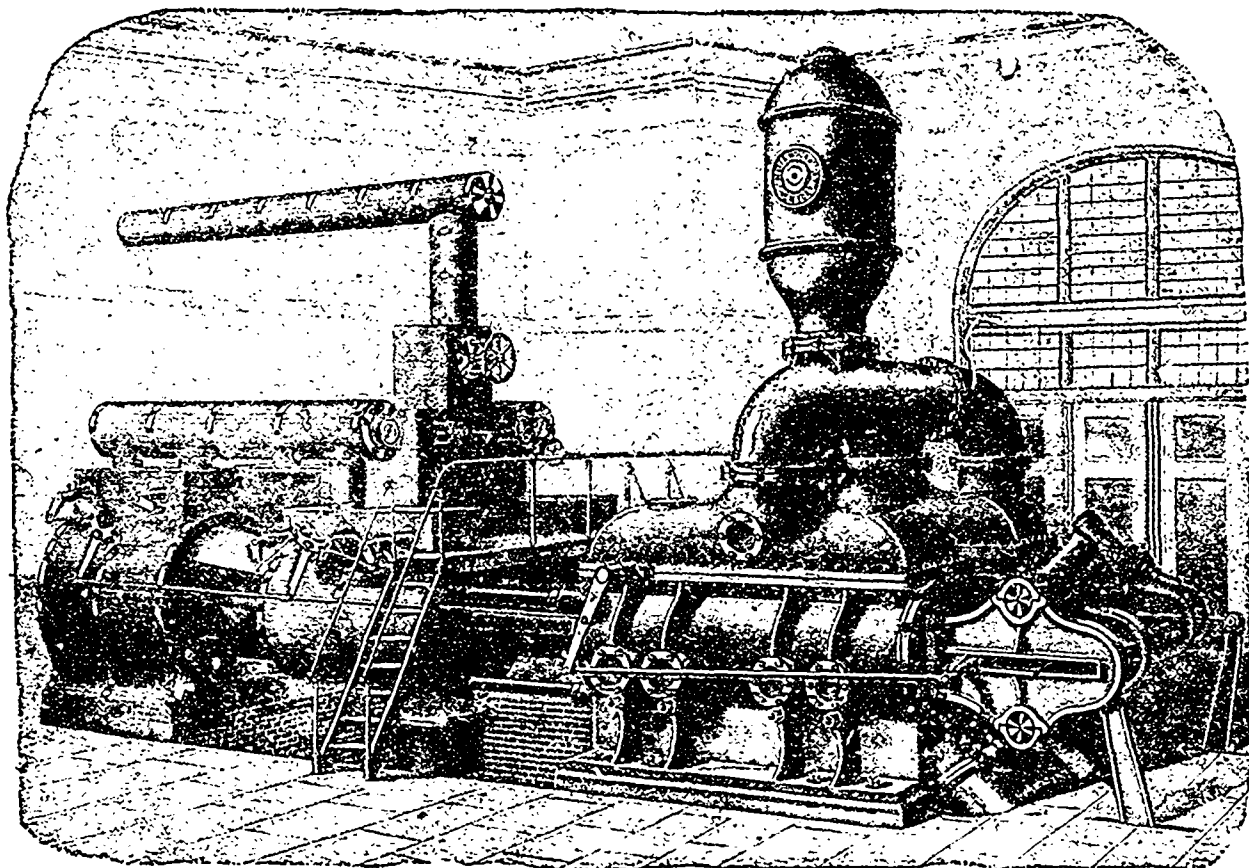
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CONDITION OF THE MARKET.

TORONTO: The volume of business is steadily increasing, and activity is anticipated as the season advances. Hardware is moving freely, and a number of car loads of cut nails have gone forward during the past week. At a recent meeting of the Cut Nail Association it was decided to fix the price at \$2.10 per keg, delivered at any point in Canada. This change is having a good effect. Trade in plumbers' supplies is improving, but slowly. Cement and firebricks are quiet and quotations unchanged.

MONTREAL: Shelf hardware is active, and the past week has been satisfactory. The demand for cement is small lots has been good, and it seems probable the supply here will be well exhausted before the first importations come on hand. Firebricks are active, and some large lots have changed hands at \$15 to \$22 per thousand. Discounts on iron pipe and galvanized iron remain unchanged.

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B. M.

Table with 4 columns: Description, Toronto Price, Montreal Price, and another Montreal Price. Includes items like flooring, dressed, B.M., undressed, etc.

Toronto. Montreal.

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SAND.

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